

Chapter 7. Management Support Services

7.1 NEPA

The National Environmental Policy Act (NEPA) was created to disclose environmental concerns created by human activities and resolve them to the extent possible. NEPA regulations (AR 200-2, *Environmental Effects of Army Actions*) require mitigation of significant impacts to the environment. NEPA was not legislated to stop actions. Rather, it was crafted to identify and consider environmental problems and attempt to resolve them using planning at early stages of project development.

7.1.1 NEPA Program Goals

NEPA program goals all contribute to one or more of the overall natural resources program goals of stewardship, military training support, compliance, quality of life, and integration. The goals for the NEPA at Fort Richardson are:

- Involve the surrounding community in Fort Richardson's natural resources program through NEPA review.
- Ensure that Fort Richardson's natural resources program is coordinated with other agencies and conservation organizations with similar interests.
- Identify projects and activities on Fort Richardson that might impact natural resources and work with project planners to resolve issues early in the planning process, using NEPA.
- Use analysis within NEPA to make informed decisions that include natural resources considerations and mitigation.
- Use NEPA to analyze the potential impacts of implementing this INRMP.
- Provide the Army Command with information needed to make decisions through the NEPA process, which includes natural resources related values.
- Review proposed actions during the project planning phases.
- Ensure mitigation measures are included in the NEPA document when there is a proposed action that will significantly impact natural or cultural resources. If such mitigation is included, ensure that it is entered in the EPR budget process.
- Use natural resources programs to provide mitigation. These resources include LRAM, special interest areas protection, wetland management, etc.
- Track projects to ensure that mitigation is accomplished and that restrictions included within the Record of Environmental Consideration (REC) are followed.
- Require that routine maintenance projects be evaluated using NEPA. This especially includes projects that disturb soil or clear vegetation.
- Use the lowest level of NEPA bureaucracy possible to minimize paperwork.

7.1.2 NEPA Program Description

USARAK must comply with NEPA to ensure its natural resources activities (as described in this INRMP) are properly planned, coordinated, and documented. NEPA documentation is required by the National Environmental Policy Act of 1970 and Army regulations, particularly AR 200-2.

An important benefit of proper NEPA implementation is that projects are often enhanced by the effort. Project location is one of the most common examples of such project enhancement. When natural resources managers understand mission/project requirements in terms of land features and requirements,

they often not only offer more potential site options to mission or project planners, but also offer alternatives to avoid environmental conflicts.

The most common NEPA document for projects that impact natural resources is a Categorical Exclusion (CX), often with a Record of Environmental Consideration (REC). This simple documentation generally fulfills the NEPA requirement for routine projects, such as vehicle decontamination exercises, borrow pits, certain small digging projects, and similar projects where natural sites are not damaged.

An Environmental Assessment is required when conditions for a CX are not met. This can happen when a new military exercise or range is planned, the action involves a large geographic area, or wetlands or other sensitive plant communities may be involved. Examples include major LRAM projects, targetry clearing, land bridge corridor, or range construction. An EA requires the Commander's approval, publishing a Finding of No Significant Impact (FNSI), and waiting 30 days for public comment.

Environmental Impact Statements (EIS) are required when proposed actions result in significant impacts to the environment. Examples of these include major land withdrawals and major military mission changes. Completion of an EIS typically requires one year, with multiple-year efforts likely for complex actions.

7.1.3 NEPA Program Responsibilities

The ERD has primary responsibility for NEPA at Fort Richardson for actions proposed by the military. Natural resources personnel assist with compliance and documentation. Army Regulation 200-2 (*Environmental Effects of Army Actions*) requires proponents to prepare and fund NEPA documentation. At Fort Richardson, proponents sometimes prepare NEPA documentation, which is ideal since it involves project managers (or military unit leaders) in decisions involved with NEPA. However, for most projects, NEPA documents are prepared by ERD.

BLM has primary responsibility for NEPA at Fort Richardson for actions proposed by the public. BLM is responsible for the NEPA process and all NEPA documentation for any actions not proposed by the military.

7.2 Decision-Support Systems (GIS, RFMSS, IFS)

There are three management components of the decision-support systems used on Fort Richardson. These three components are Geographic Information Systems (GIS), the Range Facility Management Support System (RFMSS), and the Integrated Facility System (IFS).

7.2.1 Decision-Support Systems Goals

Decision-support system goals all contribute to one or more of the overall natural resources program goals of stewardship, military training support, compliance, quality of life, and integration. The goals for the use of the decision-support system at Fort Richardson are:

- Provide decision-support capability to natural resource, range, and engineer planners and managers.
- Develop and maintain the USARAK GIS spatial database and data layers.
- Maintain GIS data in accordance with FGDC and TSSDS standards, including metadata standards.

- Coordinate and synchronize the three decision-support systems.

7.2.2 Decision-Support Systems Program Planning

Decision-support system program planning includes all the planning, budgeting, contract oversight, and organization necessary to implement decision-support system program. The primary emphasis for this component of the decision-support system program is the preparation and update of the decision-support system management action plan every five years.

7.2.3 Decision-Support Systems Maintenance

Decision-support systems maintenance primarily consists of data acquisition. Data acquisition is accomplished through GIS data input, GIS data development from other sources, utilization requests from training units input into RFMSS, and work orders submitted into the IFS.

7.2.4 Decision-Support Systems Management

7.2.4.1 Geographic Information Systems (GIS)

Project Description and Justification: Fort Richardson's natural resources and military-use spatial data is managed within the USARAK GIS system. This system is a network of digital databases that supports administrative and management objectives affecting all aspects of USARAK controlled lands. The GIS laboratory provides customers with hardcopy maps, statistical information, software support, training and custom software interfaces that complete pre-defined tasks and allows access to on-line digital databases for display and query purposes. The GIS is an essential tool for natural resources management and is extremely important component of the USARAK decision support system. Conducting conservation GIS is required by Public Law 106-65 (Military Land Withdrawal Act) as mitigation for the land withdrawal LEIS, and by Public Law 86-797 (Sikes Act) to implement the INRMP.

Measures of Effectiveness:

- Maintain a functional GIS accessible to all viewers and users on all three posts.
- Maintain an up-to-date and GIS accurate database.
- Acquire data as necessary to update GIS database.
- Produce all requests for GIS products in a timely and accurate manner.

Management History: Development of the USARAK GIS began in 1995 at Fort Richardson. The GIS was extended to Fort Wainwright in 1997 and to Fort Greely in 1998.

Current Management: The Geographic Information System (GIS) is a computer-based tool capable of assembling, storing, manipulating, and displaying geographically-referenced information. The system can be used to analyze and model (manipulate, overlay, measure, compute, and retrieve) the digital spatial data and display the new map products and tabular resource information showing the results of the spatial analysis. GIS technology integrates common database operations such as query and statistical analysis with the unique visualization and geographic analysis benefits offered by maps. These abilities distinguish GIS from other information systems.

The USARAK GIS integrates these five key components: people, hardware, software, data, and methods.

People: GIS technology is of limited value without the people who manage the system and develop plans for applying it to real-world problems. GIS users range from technical specialists who design and maintain the system to those who use it to help them perform their everyday work. Typically, people within an organization fall into one of three user categories - viewers, users, and doers. It is from these three categories that it is possible to identify the requirements necessary to build a functional GIS network and operating system. Viewers are individuals who need to view the GIS and ask simple questions of that information. Users are individuals who need to ask more complex questions of a GIS. This may involve asking very specific spatial and network analysis questions. Some people may need to make basic changes to the GIS data. Doers are individuals with an intimate knowledge of the GIS and who develop, maintain, and make the GIS data available across the enterprise.

Hardware: The USARAK GIS system consists of three workstations running Windows 2000 and a server running Windows Server 2000. Total server storage is approximately 280 gigabytes configured as a RAID 5 with each workstation having 40 gigabytes of storage. Backups are accomplished using a Dell PowerVault 120T with a full backup completed once each week and daily partial backups. For data input an Altek 36" X 48" digitizing board is on hand and for map production a Hewlett Packard 1055CM 36" color plotter is available to all networked computers.

Software: The primary GIS software is Earth Systems Research Institute (ESRI) ArcInfo 8.1 and ArcView3.2; both are vector-based systems that can incorporate raster functionality. Currently, USARAK has four licensed copies of ArcInfo available to the GIS Specialists in the Fort Richardson GIS laboratory. ArcView is available to the Environmental staff for viewing and manipulating spatial data and is installed on multiple workstations across USARAK.

USARAK GIS User Interface: USARAK developed a specific GIS software application called the Spatial Management of Military Environment (SMOTE) GIS User Interface. SMOTE is a ESRI MapObjects application that provides a controlled, simplified interface to GIS capabilities such as viewing and printing standard GIS data layers and map-sets or performing standard analyses of geographic data. Additionally, SMOTE will also be available on the USARAK intranet system with the same capabilities as the MapObjects version. This application was developed using ESRI's ARCIMS. The USARAK GIS User Interfaces were tailored to the specific needs of the military user.

Data: Probably the most important component of a GIS is the data. Geographic data and related tabular data can be collected in-house or purchased from a commercial data provider. A GIS will integrate spatial data with other data resources. Some common practices of collecting spatial data are digitizing (on-screen and with the use of a digitizing tablet), scanning, and use of a Global Positioning System (GPS). USARAK also utilizes the Installation Training Capacity (ITC) database. The ITC is a macro view of the "training sandbox" used to provide a DA level view of current capability to support training. It contains an objective calculation of range and training land requirements using RTLP methodology. It also contains some more subjective measures of installation training capacity such as drop zones (DZ), MOUT, and environmental factors. The purpose of ITC is to maintain a database that provides Army planners with accurate timely information concerning the training attributes of Total Army installations in the US.

Methods: A successful GIS operates according to a well-designed plan, executive direction, and business rules, which are the models and operating practices unique to each organization. The Federal Geographic Data Committee (FGDC) endorsed a geo-spatial data standard known as Spatial Data Standards for facilities, infrastructure, and environment (SDSFIE) (formerly called Tri-Services Spatial Data Standards (TSSDS) and Spatial Data Standards (SDS)). This standard defines a series of spatial features as well as the graphical representation of those features supported in a variety of formats. The SDSFIE was

established to promote the development, use, sharing, and dissemination of geo-spatial data on a national basis.

Proposed Management: Conduct geographic information systems management as outlined in Table 7-1.

Table 7-1. Geographic Information Systems Management.

OBJECTIVE	RESPONSIBLE FOR IMPLEMENTATION	PRIORITY	IMPLEMENTATION				
			2002	2003	2004	2005	2006
Complete USARAK GIS user interface by 2002.	USARAK Natural Resources	High	x				
Field web version of USARAK GIS User Interface by 2003.	USARAK Natural Resources	High		x			
Upgrade GIS hardware and software annually.	USARAK Natural Resources	High	x	x	x	x	x
Develop plan to conduct future expansion of the GIS by 2002.	USARAK Natural Resources	High	x				
Further develop GIS database.	USARAK Natural Resources	High	x	x	x	x	x
Obtain digital orthophotos.	USARAK Natural Resources	High	x				
Convert Master Planning data to GIS format by 2003.	USARAK Natural Resources	High		x			
Acquire statewide (including city borough) digital data by 2004.	USARAK Natural Resources	High			x		
Complete GIS Projects as requested.	USARAK Natural Resources	High	x	x	x	x	x

Other Management Alternatives Considered and Eliminated: There are other potential methods for conducting GIS management. No other options, however, would meet the needs of the military mission. The proposed management actions listed above carefully balance the needs of the military mission, recreation, and the ecosystem. Other actions would be too minimal or would be cost-prohibitive

7.2.4.2 RFMSS

RFMSS is a multi-user, PC-based software package that automates the real property inventory, scheduling, firing (operations) desk, and management functions at an installation Range Control Center. RFMSS was developed to optimize the scheduling, use, and operations and maintenance functions for an installation's live-fire ranges, maneuver training areas, and other related training facilities and assets under AR 210-21.

The basic modules of RFMSS are scheduling and fire desk operations. In addition to the basic tabular database management functions that are automated in RFMSS, several modules have been added to increase data collection, storage, and analytical capabilities. A brief description of two of the modules that affect natural resources management follows:

Automated Surface Danger Zone (ASDZ) application digitizes the range firing fans and surface safety fans for all of the Army's current and projected direct fire, indirect fire, and aerial delivery systems. These SDZs are contained in AR 385-63, Army Range Safety Program. ASDZ allows Range Control managers to better serve users in the planning and conduct of complicated combined arms live-fire and non live-fire training events.

Training Facility Inventory/Utilization (TFIU) application is currently under development and will allow Range Control managers to quantify facility usage data (electronically or manually) and perform the mathematical functions to determine the utilization trends for each range facility or training area. This application will also interface with the TRI application of ITAM for effective and efficient land management planning consistent with current and future environmental prevention considerations.

Range, Target, and STRAC Application (RTSA) automates the frequency of direct fire and indirect fire lane or firing points training requirements for specific MTOE and TDA units and activities. Among other things, RTSA captures amounts and types of munitions fired at each range. These data are required for Emergency Planning and Community Right to Know Act (EPCRA) reporting, an environmental reporting requirement.

7.2.4.3 IFS

The Integrated Facility System (IFS) is a facility engineer automated information evaluation system that encompasses life cycle management of real property resources, and is the ACSIM's official source of real property information. The current version is the IFS-Micro or Mini (IFS-M). In addition to real property information, the system performs a wide variety of other functions, such as work estimating and work order tracking. The system has two levels, one for the installation level and one for the headquarters level (now called Executive Information System). The USACE Center for Public Works (CPW) manages IFS.

7.2.5 Decision-Support Systems Responsibilities

GIS is the joint responsibility of USARAK DPW Environmental and DPTSM Range Control. GIS is funded through the conservation and ITAM programs. USARAK DPTSM Range Control has the responsibility for RFMSS. USARAK DPW is responsible for IFS.

7.3 Other Programs Affecting Natural Resource Management

7.3.1 Real Property and Master Planning (RPMP)

Land is real property. It is a non-renewable asset that has been “loaned” to the Army for use in supporting our national defense mission. Family housing, barracks, offices, roads, wilderness areas, live-fire ranges, and maneuver areas are all real property assets on this land. A primary function of master planning is land-use planning, or zoning, to balance compatible and incompatible land-uses to meet industrial, residential, and recreational requirements.

7.3.1.1 RPMP Goals

The purpose of the RPMP is to provide planning for over 300 types of installation real property assets, including barracks, family housing, utility systems, industrial facilities, roads, classrooms, ranges, and maneuver land. The planning process sets requirements for facilities to support installation missions, evaluates the adequacy of existing facilities, proposes modifications, removals, and additions, and

provides a planning roadmap to address shortfalls and excesses. Large new projects identified in the RPMP compete at the MACOM, HQDA, DOD, and Congressional levels for Military Construction funding. Smaller projects are prioritized for RPMA funding.

7.3.1.2 RPMP Description

RPMP is the process used by the Army to plan for the identification of facility requirements, the design and construction of new facilities, the maintenance of existing facilities, and the reuse or disposal of obsolete facilities. RPMP includes long- and short-range plans such as Tabulation of Facilities Required and Available (TAB), capital investment strategies, mappings of installations and surrounding areas, and Installation Design Guides that unify the appearance of installation facilities. RPMP also includes a variety of supporting elements, including traffic plans and inventories of historical properties.

7.3.1.3 RPMP Responsibilities

Real property management and master planning are the responsibility of the Assistant Chief of Staff for Installation Management (ACSIM), with the DPW having the responsibility at the installation level. The DEP and USAEC are part of the OACSIM. The training community supports property management through ITAM (AR 350-4) and planning through the RTLP (AR 210-21). Real Property and the Corps of Engineers have responsibility for easements and leases.

7.3.2 Range and Training Land Program (RTLP)

7.3.2.1 RTLP Goals

The primary Range and Training Land Program (RTLP) goals are:

- Standardizing and modernizing Army training ranges.
- Standardizing the Army training land acquisition process.

The steps to achieve these goals are:

- Ensure that ranges and maneuver land support the requirements to train soldiers realistically, in a manner consistent with current and future Army doctrine and force structure, while addressing the impacts of new weapons systems and ammunition.
- Regulate range operations, maintenance, and automation systems to support realistic training.

7.3.2.2 RTLP Description

The RTLP is the Army program that conducts range operations and maintenance to train soldiers in the field. Fort Richardson Range Control implements RTLP by operating firing ranges and regulating use of training and impact areas. The RTLP is not a natural resources program, but is extremely important to the execution of this INRMP. Since military-use is the primary land-use on Fort Richardson, the RTLP provides a framework within which natural resources management is conducted. Range Control regulates access to Fort Richardson training areas and ranges, and is instrumental in supporting protection and conservation of sensitive natural resources from military and recreational-use alike.

The key RTLP planning product is an installation Range Development Plan (RDP). The RDP defines the range and training land requirements for use in the installation Real Property and Master Plan (RPMP), INRMP, and ICRMP. These efforts, together with the ITAM Workplan, should produce a sound approach

for consistent and proactive management of training land, balancing mission, infrastructure, and environmental stewardship.

The RPMP addresses all installation facility requirements while the RDP focuses on facility requirements plus range and training land planning. While the RDP focuses on the “live training domain,” it must also consider Training Aids, Devices, Simulators and Simulations (TADSS) as part of the alternatives analysis.

7.3.2.3 RTLP Responsibilities

At Fort Richardson, the DPTSM is the RTLP proponent. Range Control is responsible for implementation of the RTLP.